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10/674,902	09/29/2003	Igor D.D Curcio	915-010.006	4828

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EXAMINER	
CASCA, FRED A	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,902	CURCIO ET AL.	
	Examiner	Art Unit	
	FRED A. CASCA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 14-33* is/are rejected.

7)☒ Claim(s) *13 and 34-38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on June 19, 2008. Claims 1-38 are still pending in the present application. **This Action is made FINAL.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-12, 14-18 and 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apostolopoulos et al (US 2003/0009576 A1) in view of Leighton et al (US 2003/0200326 A1) and further in view of English (US Pub. No. 2003/0002460 A1)

Referring to claim 1, Apostolopoulos discloses a method (abstract) comprising: receiving streaming media in a client device from a streaming server over an air interface (paragraphs 2 and 9, "streaming media to fixed clients and /or mobile clients") detecting a cell resection event in the mobile client device (paragraph 10, "handoff", "detects that a mobile client enters the service region of a base station"), and in response to the detected cell reselection event, requesting the streaming server to send streaming media which the mobile client device is not able to receive due to the cell reselection (Figures 9-11 and paragraph 10, 141-145, 147, 150 and 155, "handoff the media streaming session to the second base station").

Apostolopoulos does not specifically disclose requesting with an application level request.

However, application level requests (e.g., via RTCP) are conventional in the art of communication, as Leighton discloses an application level request by using RTSP (Real Time Streaming Protocol) for providing a complete streaming service (paragraph 26, "RTSP is an application-level protocol", "RTSP, the Real Time Streaming Protocol, is a client-server multimedia presentation protocol to enable controlled delivery of streamed multimedia"). An advantage of application level request is to assist the applications running on the source and destination terminals to establish an application level connection, thus, providing user with control.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Apostolopoulos by incorporating the teachings of Leighton in the format claimed by applicant, for the purpose of allowing an application level connection and thus providing control and convenience to the user.

The combination above does not specifically state that the mobile device makes the requesting, as claimed.

English discloses a mobile station transmits requests to receive data that were lost or not received (paragraph 71, "NACK").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination in the format claimed by applicant, for the purpose of providing an efficient communication system.

Referring to claim 2, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming server is provided with a starting point at which to start sending the requested streaming media (Apostolopoulos, paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 3, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming server sends the streaming media which the mobile client device is not able to receive due to said cell reselection as well as a remaining portion of streaming media in response to the request (Apostolopoulos, paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 4, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the cell reselection comprises a cell reselection period during which the mobile client device is not able to receive streaming media (Apostolopoulos, paragraph 10, 141-145, 147, 150 and 155), the method further comprising sending from the mobile client device to the streaming server, after the cell reselection period, a resending request which requests the streaming server to resend streaming media which the mobile client device was not able to receive during the cell reselection period (Leighton, paragraph 26) .

Referring to claim 5, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 4, and further disclose the resending request is generated according to Real Time Streaming Protocol (Leighton, paragraph 26, "RTSP").

Referring to claim 6, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 4, and further disclose the resending request is implemented by a Real Time Streaming Protocol PAUSE/PLAY message pair (Leighton, paragraph 26).

Referring to claim 7, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming media is temporarily stored in a temporary store such as a buffer, at the client device before playing (Leighton, paragraph 5 and 26, "buffering").

Referring to claim 8, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 7, and inherently disclose the temporary store has a size longer in time than a cell reselection period (Leighton, paragraph 5 and 26, and Apostolopoulos, figures 9-11 and paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 9, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 7, and inherently disclose the streaming server is requested to send streaming media at a rate higher than the playing rate of that media so as to increase a degree of fullness of the temporary store (Leighton, paragraph 5 and 26, and Apostolopoulos, figures 9-11 and paragraph 10, 141-145, 147, 150 and 155)

Referring to claim 10, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 9, and further disclose a bandwidth or desired transmission bit rate with speeding factor is communicated to the streaming server in a request (Leighton, paragraph 26).

Referring to claim 11, the combination of Apostolopoulos/Leighton/English discloses the method according to claim 9, and further disclose the streaming media is stored at the mobile client device at a rate higher than the playing rate.

Referring to claim 12, the combination of Apostolopoulos/Leighton/English discloses the method according to claim 9, and further disclose the streaming server is subsequently requested to resume an original configuration (Leighton, paragraph 26).

Referring to claim 14, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming server has a set of media streams available for transmission in which the same media content has been encoded at different bit rates (Leighton, paragraph 5 and 26, and Apostolopoulos, figures 9-11 and paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 15, the combination of Apostolopoulos/Leighton/Englsih disclose the method according to claim 14, and further disclose information on the available set of media streams is beforehand communicated to the mobile client device in a streaming session setup (Leighton, paragraph 5 and 26, and Apostolopoulos, figures 9-11 and paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 16, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 14, and inherently disclose the streaming server is requested to switch from sending a higher bit rate media stream to sending a lower bit rate media stream at an increased speed (Leighton, paragraph 23).

Referring to claim 17, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming media comprise one of the

following: a video stream, an audio stream, another stream of single media, a multimedia stream (Leighton, paragraph 5, 23 and 26, and Apostolopoulos, figures 9-11 and paragraph 10, 141-145, 147, 150 and 155).

Referring to claim 18, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1, and further disclose the streaming serve sends streaming media to the mobile client device via a mobile communications network (paragraphs 2 and 9).

Referring to claims 21-25, claims 21, 22, 23, 24 and 25 defines a mobile client device, a streaming server, a system and computer programs reciting features analogous to the features of the method defined by claim 1 (as rejected above). Thus, the combinations of Apostolopoulos/Leighton/Englsih disclose all elements of claims 21-25 (please see the rejection of claim 1 above).

Referring to claims 26-31, claims 26-31 defines a mobile client device, a streaming server, and a system reciting features analogous to the features of the method defined by claims, 45, 7, 9 and 9 (as rejected above) respectively. Thus, the combinations of Apostolopoulos/Leighton/English disclose all elements of claims 26-31 (please see the rejection of claim1 above).

Referring to claim 32, the combination of Apostolopoulos/Leighton/English disclose a streaming server according to claim 22 and further disclose the streaming server comprises a memory for storing a set of media streams which are available for transmission in which the same media content has been encoded at different bit rates (Leighton, paragraphs 5, 7, 23 and 26).

Referring to claim 33, the combination of Apostolopoulos/Leighton/Englsih disclose a streaming server according to claim 22 and further disclose the streaming server is configured to communicate information on the available set of media streams beforehand to the mobile client device in a streaming session setup (Apostolopoulos, paragraphs 2, 9, and Leighton, paragraphs 23-26).

4. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apostolopoulos et al (US 2003/0009576 A1) in view of Leighton et al (US 2003/0200326 A1) further in view of English (US 2003/0002460 A1) and and further in view of well known prior art (MPEP 2144.03).

Referring to claim 19, the combination of Apostolopoulos/Leighton/English disclose the method according to claim 1.

The combination does not specifically disclose the mobile communications network comprises a mobile packet radio network, such as a General Packet Radio Service network.

The examiner takes official notice of the fact that GPRS networks are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination by incorporating the teachings of well-known art for the purpose of extending the service to larger networks.

Referring to claim 20, the combination of Apostolopoulos/Leighton/Englsih disclose the method according to claim 1, and further disclose cell reselection is performed between two base stations (Figures 9-11 and paragraph 10, 141-145, 147, 150 and 155, "handoff the media streaming session to the second base station").

The combination does not disclose base stations belonging to a GPRS system, base stations belonging to a third generation mobile communications system as claimed.

The examiner takes official notice of the fact that handoff or cell selections between different network are conventional in the art e.g., dual and multi mode mobile terminals that are capable of handing off between different networks.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination in the format claimed by incorporating the teachings of well known art, for the purpose of providing user convenience.

Allowable Subject Matter

5. Claims 13 and 34-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1-18 and 21-38 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to claims 19-20 have been considered but they are not persuasive.

With respect to claim 19, the examiner asserts that GPRS is a conventional and well known communication technology and maintains the rejection of claim 19 as submitted in the Office Action of 19 March 2008. Examiner provides the following references to show that GPRS is a well known technology:

Saarkkinen et al., US 2004/0042491 A1, (paragraph 22), and

Soderbacka et al., US 2003/0114158 A1, (paragraph 3).

With respect to claim 20, the examiner asserts that handoff between a GPRS and a 3rd Generation mobile communication system (e.g., UMTS, CDMA2000) is a conventional and well known communication technology and maintains the rejection of claim 20 as submitted in the Office Action of 19 March 2008. Examiner provides the following references to show that GPRS is a well known technology:

Saarkkinen et al., US 2004/0042491 A1, (paragraph 22), and

Soderbacka et al., US 2003/0114158 A1, (paragraph 3).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/
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